RESEARCH ON PLAN PERFORMANCE INDICATORS

In September 1999, the Centers for Medicare and Medicaid Services (CMS) contracted with Barents Group of KPMG Consulting, Inc., and its subcontractors Harvard Medical School, Westat, and MEDSTAT, to provide background and support activities that would identify key areas for additional research and development of improved performance measures for health plans (contract no. 500-95-0057/T.O. #9). In addition to the focus on improved performance measures, the project also focused on developing strategies to increase the potential for purchasers and consumers to use these measures effectively. The project included background literature reviews and site visits to selected employers and other purchasers to assess their needs for and uses of current performance measures.

CMS also sponsored, as part of this project, a two-day conference on *The Future of Plan Performance Measurement* on May 2-3, 2000. Nineteen research papers were presented at this conference, with breakout sessions centered on identifying key topic areas for measuring and improving plan performance. Subsequent to the conference, a number of the research papers were published in a Supplement to the *Health Care Financing Review* (Spring, 2001).

The conference results, together with the site visit findings and the literature reviews, provided the foundation for developing a Research Agenda that guided the second phase of this project. High priority areas for further research were identified and approved by CMS for examination by the project team. These included:

- Research on Methods to Combine All Dimensions of Performance into Simpler Composite Measures
- Analysis of the Relationship Between Medicare HMO Benefits Packages and Plan Performance Measures
- Examination of the Relationship Between Plan, Network and Group Performance
- Research on Methods for Using Available Performance Measures to Monitor and Improve Quality for Enrollees with Specific Health Conditions
- Conceptual Examination of Performance Measurement from the Perspective of Providers
- Assessment of Benefits, Costs, and Strategies to Improve the Usefulness and Cost-Effectiveness of Performance Measurement
- Performance Indicators and Quality Improvement: Using the Former as Catalysts for the Latter in Managed Care Organizations

The opinions and conclusions drawn in the reports on these research agenda topics were those of the authors and do not necessarily reflect the views of CMS or of their respective organizations. Abstracts of these reports follow. For further information, contact Terry Lied, Ph.D., phone number 410-786-8973 or e-mail: tlied@cms.hhs.gov.

ABSTRACTS

Research Topic 1: Research on Methods to Combine Performance Indicators into Simpler Composite Measures

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A rich array of health plan performance indicators that provide extensive information about clinical and administrative aspects of health care are currently available. However, data users often find that the numerous available indicators are difficult to interpret, prioritize, or summarize and many indicators are theoretically and/or empirically related. Some data users, therefore, are questioning the utility of collecting such a large volume of information, since fewer measures might provide a quantitatively and qualitatively similar portrait of plan quality.

This project explored the feasibility of combining health plan performance indicators into composite measures. We reviewed existing strategies for combining empirical analytic results and using expert opinion to guide the development of plan performance scales and/or indices. We tested some of those strategies with available data and presented the results to personnel at CMS who regularly use such information. The project report summarizes the main findings, makes preliminary recommendations for combining information from the indicators studied, and makes recommendations for further research in this area.

Research Topic 2: The Relationship between Medicare HMO Benefits Packages and Plan Performance Measures

Don Cox, Ph.D., Allison Strabic, B.S., and Bettina Lanyi, M.P.A.

There is increasing interest in developing improved methods to distinguish between better and worse quality health plans. Relative plan performance, however, may differ for reasons concerning the composition of their enrolled populations, the market within which they operate, the mix and generosity of benefits they may offer, and other plan features.

HMOs participating in the Medicare+Choice (M+C) program offer a set of benefits that vary across plans. CMS has gathered a considerable amount of detailed information on plan benefit offerings and plan performance ratings. As such, the M+C program offers a nearly ideal opportunity for examining the relationship between plan benefits and performance.

This paper reports the results of an analysis of the relationship between benefits that are not covered by fee-for-service Medicare but are offered by Medicare M+C plans (i.e., supplemental benefits) and their plan performance ratings. This analysis focused on questions including which benefits are most important, and how the effects of benefits on plan performance might differ across different beneficiary groups. We examined two measures of plan performance: 1) plan

ratings as reported in the Medicare Managed Care (MMC) Consumer Assessment of Health Care Study (CAHPS®) and 2) disenrollment rates. These measures were examined for all plan enrollees, and those enrollees in certain demographic subgroups or with possible exceptional health care needs.

The results of our analysis indicated that:

- Variations in plan supplemental offerings have little impact on enrollees' plan performance ratings--both overall ratings and access to care measures; and
- Although disenrollment rates are more sensitive to variations in benefit offerings, the ability to switch plans, either in general, or for specific benefits has a stronger impact.

Given these findings, it will be interesting to see how the forthcoming changes in Medicare plan enrollment policies that will require enrollees to commit to their plan for an extended period of time might affect these relationships. On the one hand, plan ratings might become increasingly reflective of not only the quality, but also the quantity of benefits offered. In contrast, beneficiaries might still draw the distinction between quality and quantity. Replications of analyses, such as the one presented here after the enrollment lock-in provision is fully implemented, should help shed light on this topic.

Research Topic 3: The Relationships between Plan, Network, and Group Performance

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Recent measurement development initiatives and report card efforts have often emphasized health plans as the principal unit of analysis. The potential for substantial within-plan variation in patients' experience of care, however, argues for a shift in the unit of measurement to lower levels of the delivery system. Using a series of ANOVAS models and variance components analysis, this paper evaluates the relative influence of nested organizational structures on quality, as measured by the Group-Level CAHPS® (G-CAHPS®) instrument. Organizational units evaluated include: health plans, multi-group entities akin to independent practice associations and physician/hospital organizations called regional service organizations (RSOs), medical groups and individual practice sites. Our results indicate that RSO-, group- and site-level effects all tend to be significant, with practice sites explaining the greatest share of variation for the vast majority of G-CAHPS® measures. By contrast, health plans have a significant influence for only a handful of measures, and represent a small source of variability in patients' experience of care.

Research Topic 4: Research on Methods for Using Available Performance Measures to Monitor and Improve Quality for Enrollees with Specific Health Conditions

Vernon F. Schabert, Ph.D., Mahil Senathirajah, M.B.A., Dennis B. McIntyre, M.D., Dominique McLerran, M.H.S, Ioana Montel, M.Sc., and Ann Lin, M.A.

Quality improvement and performance measurement are now firmly rooted in the health care environment. The sector having accepted that quality can and must be measured and improved, the key question is now how to do this most effectively within current fiscal, organizational and data limitations. This project examined three conditions/issues: diabetes, congestive heart failure (CHF) and influenza immunization. For these three conditions/issues, the project sought to identify best practices in the use of both quality improvement interventions and performance measurement systems, gain a deeper understanding of the barriers and emerging issues related to each and identify organizational and process characteristics that most impact the success of interventions.

The project involved a literature review supplemented by interviews with key organizations. The literature review revealed differences in best practices across the three conditions. For influenza, organizational change strategies (such as clinic standing orders for immunizations), financial incentives and patient and provider reminders were consistently successful strategies. For diabetes and CHF, on the other hand, a limited number of best practice interventions prevented the identification of consistently successful interventions. No consistent associations emerged between the type of organization, type of intervention, and success of an intervention.

Interview responses offered hypotheses to explain some of the variation identified in the literature search. For example, organizations were more likely to select certain conditions for interventions because of data availability, the richness of the clinical evidence base, the availability of successful interventions and performance measures, external reporting requirements, and the association between improved outcomes and reimbursement. Physician leadership and a supportive organizational culture were identified as key success factors for interventions, more so than organization type or structural characteristics. Respondents considered the publicly available performance measures in these conditions to be adequate, but because most aggregate results at the level of a health plan, they were not perceived to have a significant impact on quality at the point-of-care. The primary opportunity to spur quality improvement was seen to be at the provider-level.

Interview respondents suggested that the following changes would improve the number of organizations improving quality, as well as their effectiveness in doing so:

- The implementation of quality measurement initiatives at the provider-level in combination with the provision of patient-specific quality improvement tools at the point-of-care
- Integration of plan and payer approaches to improving and measuring quality at the provider-level
- Rationalization of quality measurement sets across organizations

- Greater linkage between quality performance and financial performance
- Enhanced evaluative research assessing the impacts of quality improvement interventions and performance measurement systems

Research Topic 5: Conceptual Examination of Performance Measurement from the Perspective of Providers

Vernon F. Schabert, Ph.D. and Mahil Senathirajah, M.B.A.

Widely available performance indicators measure quality at the plan or hospital level. However, performance measurement at the physician or provider organization level is desired by many health care organizations. Measuring physician or provider organization performance may facilitate quality improvement because large variations in utilization can be explained by local practice patterns, and individual physicians directly or indirectly control a large share of all healthcare utilization. Successful provider measurement, however, poses several significant challenges. The objective of this project is to outline a provider-focused concept of performance measurement and a framework for developing provider performance measures. We analyze proceedings from a Centers for Medicare and Medicaid Services (CMS)-sponsored conference on performance measurement and present two case studies of organizations that have successfully developed or implemented provider-level performance measures.

Accessing data to measure providers poses greater challenges than does accessing data for plan-level or hospital-level measures. Provider transaction systems rarely support measurement activities, and critical data elements may be found only in paper medical records. Therefore, provider-level performance data is more expensive to collect than data for other levels of aggregation. In addition, provider-level measures have smaller samples that support internal quality improvement but may not be interpretable by external audiences.

Selection of measures and specifications of provider-level performance also poses unique challenges. Use of existing measures often requires significant modification of specifications to reflect the dynamics of a provider's relationship with patients and other providers. The development of new specifications often forces difficult tradeoffs between time to implementation and specificity acceptable to the measured providers.

Of greatest concern to providers is the potential use of provider-level measurement results. Precedents from malpractice lawsuits and billing compliance programs have made providers extremely suspicious of sharing performance data with outside organizations. Providers may insist that the results of measurement be used only for internal quality improvement, which may mean that results are not shared with external audiences. In addition, the level of provider aggregation (individual physician or physician organization) may influence the value of measurement results for improving performance.

We propose a framework for developing provider-level performance measures that addresses data access, measures and specifications, and use of results. Effective provider measurement efforts produce meaningful results for each measured provider; receive endorsement of or cooperation from measured providers; and promote further investigation of specific cases by measured providers, with the intent of improving care as needed. We suggest compromises and tradeoffs that can meet these goals while accelerating data access, measure design, and collection of meaningful results.

Research Topic 6: The Future of Plan Performance Measurement: Benefits, Costs, and Strategies

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Performance measurement is a 'tool' that can provide valuable information that may help consumers, purchasers, health plans, and providers to make better decisions and, in addition, could lead to improvements in the quality of health care and the quality of service. These benefits, if obtained, would result in better outcomes in our health care system. The data requirements and the analysis and reporting associated with performance measurement, however, are extensive, burdensome, and costly. Justification of a comprehensive performance measurement system would require that the benefits being obtained warrant the necessary costs of the system. Although there has been a dramatic increase in the requirements for data collection and analyses of performance, it is unclear that the data being reported are being used effectively by the intended audiences.

This paper examines the benefits of performance measurement, both intended and in current practice, and considers the barriers to effective use of existing performance measures. Costs of developing, implementing, analyzing, and reporting performance measures are also examined and considered, relative to the benefits that have been achieved to date. In addition, information is presented from interviews with key health plan, provider, and performance measurement organization leaders on barriers to effective use of performance measures and potential changes that might improve the current system. Finally, a set of strategies is presented that, if implemented, could reduce barriers to effective use of performance measures and accomplish the goals of performance measurement more cost-effectively.

Research Topic 7: Performance Indicators and Quality Improvement: Using the Former as Catalysts for the Latter in Managed Care Organizations

Dennis B. McIntyre, M.D.

Health plan performance measurement instruments, such as the Health Plan Employer Data and Information Set (HEDIS®), the Medicare Health Outcomes Survey (HOS), and the Consumer Assessment of Health Plans Study (CAHPS®) are widely used in the managed care industry. Many health plans also undergo voluntary accreditation processes through the either the National Committee for Quality Assurance (NCQA) or the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). All these instruments are intended to generate performance data that are easily understood and useful to both consumers and purchasers of health care services. Nevertheless, despite the abundance of these performance measurement activities, there is fairly widespread sentiment among payers and providers that a significant gap exists between performance measurement itself and the generation of significant quality improvements. In addition, many of the improvements in health plan performance are not necessarily felt or appreciated at the individual beneficiary or provider level. And, finally, although many purchasers of health care services continue to give nominal recognition to the importance of quality, cost tends to be the dominant driver of the selection process.

This article discusses several strategic and tactical approaches that managed care organizations (MCOs) might consider as they attempt to make quality improvement activities more meaningful for all their constituents. Included among the topics discussed are: 1) the value of creating a *context* for improving care and access and creating a "culture of quality; 2) the importance of MCO organizational structure and culture; 3) effective management and integration of the various operational components of MCOs; 4) avoiding common problems and pitfalls that can impede an MCO's ability to improve quality; and 5) "best practices."